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HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

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EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

VOL. V.—No. 127.] FRIDAY, SEPTEMBER 11, 1885. [PRICE TWOPENCE.
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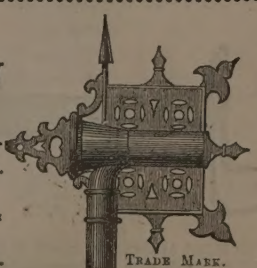

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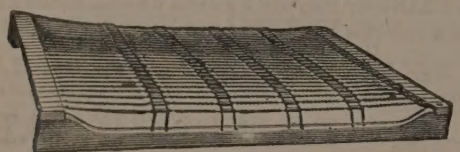

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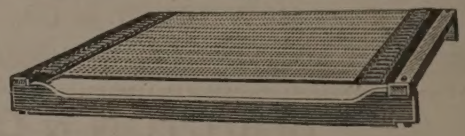

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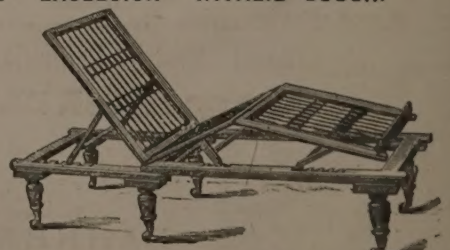

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HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, SEPTEMBER* 11, 1885.

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Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

SOME curious items of medical interest have been recently ventilated in the shape of the question whether or not certain individuals may receive from their parents, as a matter of inheritance, a non-liability to infection from various diseases. The child is thus believed to inherit a constitution from its parents which prevents its being affected by diseases which other persons "catch" readily. There is nothing at all improbable in such an idea. It is possible that the protective influence of thorough vaccination against small-pox might, in time, be transmitted from one generation to another. Dr. Kaltenbach, of Giessen, has recently been ventilating the subject of this acquired freedom from infection. He gives the case of a twin-girl, one of a family of six, who escaped scarlet fever, although twice exposed to infection when the other children took the disease, one being the twin-sister. The twins, however, took measles together, as well as catarrhs; but in the case of the scarlet fever, the one girl appeared to resist infection successfully.

THE curious point in this case consists in the fact that the mother of the twins had scarlet fever severely when six years of age, and the twin who escaped infection strongly resembled her mother. Here, it is supposed, the protection of the mother, arising from the attack of scarlet fever, had descended to her child. The other twin, on the contrary, took after her father, who was not protected like the mother. Just as features of bodily and mental kind pass from parents to children, so, it may be presumed, protective qualities may be transmitted. Some of my readers may know of cases of similar kind? If so, I shall be glad to hear of such instances.

ANOTHER case is given by Hebra. A woman attacked by small-pox gave birth to three children—triplets. Two of the children exhibited the disease; the third remained perfectly healthy. All three must have been equally exposed to infection; and the idea was that the one who escaped inherited its freedom from attack from the father's side.

ANTI-VACCINATIONISTS are never weary of telling us that smallpox will tend to disappear through the simple amelioration of our surroundings. It is, of course, an agreeable and easy matter for those who indulge in the circus-canters of threadbare arguments to overlook the fact that outbreaks of smallpox do occur spontaneously among unvaccinated persons, as do cases of typhoid fever or of cholera itself in ordinary communities. The anti-vaccinator will allow no protection from smallpox by vaccination, of course, and the inevitable result of a high mortality from smallpox succeeds such attack.

THIS latter fact is beyond dispute. Over and over again it has been shown that amongst unvaccinated persons the death-rate is enormous, when compared even with cases occurring in persons who have been imperfectly vaccinated, or in those who have not been re-vaccinated. This result is once more seen in a case reported in the last quarterly report of the Illinois State Board of Health. At a negro meeting of protracted kind, 144 persons took smallpox. Of these 120 were unvaccinated. Within a week, 14 of these 120 were vaccinated. Of the remaining 106 cases, 38 died, or 35·84 per cent. Of the 14 vaccinated after exposure to the attack, *all* recovered. Comment here is needless.

THE spleen and its uses formed puzzling topics to the classic physicians; and a correspondent—Mr. Curran—of a medical journal has recently called attention to the ancient literature of this subject. He points out that a curious passage bearing on these points occurs in Gideon Harvey's "Morbus Anglicus; or the Anatomy of Consumptions" (London, 1666, p. 34):—"It runs as follows, and would, if true," he adds, "help to show that this organ is, like its neighbour the appendix vermiformis cæci, almost, if not quite, a superfluity in the animal economy. 'The use allotted for it (the spleen) may be,' says our author, 'to fill up that empty space that would be if the spleen were wanting, or to transmit heat to the stomach, or to serve for a supporter to the veins and arteries that pass through it to several parts of the body.'" If I mistake not, Erasistratus, of Alexandria, the classic authority, insisted that the spleen served the purpose of "packing" to the other organs of the body. It might be serviceable, if the writer took pains to ascertain the correctness of my assertion.

CONTINUING his quotation, Mr. Curran gives us the following:—"That it is not destined for any absolutely necessary function of generating or clarifying the blood is inferred from the ancient customs Plautus, Hali Abbas, and Pliny, Lib. ii., cap. 37, speak of, when they were wont to burn the spleen of their foot-coursers that used to run for sport or wages; and some they would quite cut out their spleen, to make them run lighter and render them long-winded; because the spleen is otherwise apt to weigh down the diaphragma. Ronsanes, in his 'Treatise de Part. Cæs.,' sect. 4, cap. 5, inserts an observation of several whose spleens were cut out, and of another whose spleen was quite worn or dryed away, and nothing remaining but the outward skin." Considering the trouble it gives to magistrates, medical men, and others in India, adds Mr. Curran, it might not be out of place to suggest the removal of it altogether as a preparation for, or a preservative against, the effects of residence or injury in that and other tropical climates.

IN a postscript, however, I find the following remarks:—'As to the 'heating' faculty ascribed to it above, it is as old as the hills. The phrase 'fomes ventriculi' occurs in

Celsus and others, so that the description of this organ by, *inter alia*, Sir Anthony Carlisle, as 'a warming-pan for the stomach,' is not new (What is?), and we are, I fear, almost as far off as ever we were from the true object and uses of this long-suffering and mysterious organ." I should like to point out to Mr. Curran that, although there may be certain points connected with the functions of the spleen still undetermined, he is surely overstating the extent of our ignorance respecting this organ. There is scarcely a text-book of physiology of recent date which does not show that it is at least more than probable that the spleen is a lymphatic or blood-gland, and that, as such, it possesses the duty of forming new blood-corpuscles, and of likewise disintegrating and disposing of the worn out ones. Besides, I might refer Mr. Curran to the famous researches of the late Hughes Bennett, of Edinburgh, and of Virchow, on the "white celled blood" disease—researches which those who, like myself, were students under Bennett, will remember, if only for the graphic descriptions of his controversy with Virchow which the distinguished Edinburgh physiologist embodied in his lectures.

* * *

I have before alluded to the immense improvement in gas-lighting, and to the agreeable diminution in gas-bills which follow the fixing of a Stott's "Gas Governor" in a house. It is, therefore, not surprising to find that the merits of this invention should prove its best claim to success, and that Messrs. Stott have just been awarded their thirty-sixth public testimonial, in the shape of the Silver Medal of the Universal and International Exhibition at Antwerp.

* * *

Mr. Mark Judge's design for a street lavatory at the junction of the Harrow and Edgware-roads, London, should be seen by all authorities and boards who may contemplate erecting similar conveniences—none to numerous, by the way, in all our large towns. I think Mr. Judge has been highly successful in providing the necessary accommodation for a large centre, without offending any canon of art or good taste, and in providing, at the some time, sanitary conditions and requirements.

* * *

From a description of Mr. Judge's work I extract the following details:—"In this plan the whole accommodation is below the surface of the roadway, and all that presents itself to the view of the passer-by is an ornamental pillar lamp rising out of a bed of plants and surrounded by an ornamental iron railing. On the side furthest from the houses are two flights of steps, one for entrance and the other for exit. Below are seven water-closets, nineteen urinals, a lavatory with three wash basins, and an attendant's room. The closets are fitted with 'Kenon' hopper basins and double-service flushing-cisterns, and the urinals have automatic flushing-cisterns."

* * *

"Each closet is separately ventilated by means of a grating in the curb, and the pillar lamps form a general ventilator in the whole, while the well hole to each flight of steps is open to the street. The roof is constructed with rolled joists and forms the public footway outside of the railings, light being obtained by means of prism pavement lights over the underground corridor, on either side of which the water-closets, urinals, and lavatory are placed. A large iron vase, with ventilating shaft through it, is placed on the street level, in the centre. The water-tank is in the lower part of this vase, the upper part of which forms the bed for flowe s. The main structure is of brickwork, faced with white glazed bricks. The estimated cost is £500."

Original Essays

"Life is not to live, but to be well."—*Martial.*

DIET AND DISEASE.

By Dr. Andrew Wilson.

Continuing our examination of the subject of food as related to sickness, certain general rules are to be discerned, attention to which may obviate much disease and unhappiness. Dr. Roberts, in his remarks on food in relation to disease, lays down very strongly the rule that individual peculiarities and the "personal equation" should be studied as a guide to health, where food and drinks are concerned. He remarks the familiar fact that there are "natural-born" vegetarians, just as there are others to whom a vegetable diet proves wholly unsuited. There are persons intolerant of tea, while others cannot partake of coffee without feeling ill. Others cannot touch alcohol. Idiosyncracies have been noted to occur where mutton proved almost a poison to some persons, and where shellfish have caused serious illness.

Hence, once again, we are shown how absolutely essential for health is the study by each individual of his or her peculiarities of constitution as related to foods and drinks. These exceptional cases do not invalidate the broad laws of our nature, to which reference was made in our last article. They constitute merely the inevitable exceptions which wait on the most general of rules, and they serve to demonstrate anew to us the futility of arguing about living bodies as if we were dealing with exact or mathematical quantities. It is this egregious blunder, arising from a want of scientific culture, which causes men and women to adopt this "'ism," or that "'ism," in utter defiance of the facts of life. The vegetarian who wishes to convert all men to his "'ism" because, forsooth, he has found plant-diet to agree with him, or the anti-vaccinator who discards vaccination and abuses every one who dares to suggest that the operation is beneficial for the mass, while it may be found unsuitable here and there, are examples of the tendency which ignorance of the broad laws of physiology possesses in the way of making otherwise estimable persons the raving fanatics of our social life. The only safe grounds on which we can argue respecting foods, or any other circumstances of our existence, are those which are afforded by the study of the general conditions and broad laws underlying the whole constitution of living things.

Dr. Roberts divides sick persons in the matter of their food and feeding into "those who are able to take and to digest solid food, and to conform in the main with the general dietetic habits of healthy people." His second class consists of such persons "who can take little or no solid food, and who must be fed on a plan deviating widely from the common custom."

That the majority of invalids belong to the first class goes without saying. As a rule, there must exist circumstances of serious nature in the individual case, in which an inability to take solid food is found. The sick person who can take solid food finds in the *variety* of dishes one means of restoration to health. This variability of food, as Dr. Roberts points out, has its own uses. It prevents that cloying of the appetite so common even among persons accustomed to plain fare, which strikes at the root of personal enjoyment of food, and necessarily of health also. The most highly-civilised nations are, in fact, distinguished for the variety of the expedients wherewith the food is rendered palatable and agreeable. The perfection of the *cuisine* is

in reality, an aid to health in this view of matters. The accustomed sneer at French cookery is only a symptom of ignorance, and of non-appreciation of the value of variety in food as a sanitary help. It is not a mere matter of taste and palate which is served or ministered to by the skill of the *chef*. Monotony in food, like monotony of duties, is a fertile cause of illness or of the weariness which, in turn, produces the ailment, and it must be remembered that the sick man becomes especially punctilious in the matter of his diet. Hence, that the agreeable change of foods and dishes is in itself a means of cure, admits of no denial. The physician recognises this principle, and acts upon it in his supervision of the sick-dietary.

Our author speaks forcibly regarding this point. He tells us that "our stomachs are nearly as individual as our faces, and are very peremptory in regard to their likings and dislikings. In adapting diet to these idiosyncrasies, it is, however, a good rule, as far as practicable, to lessen the quantity of the offending articles rather than to forbid them altogether; or, if they must be forbidden, to provide in their place substitutes of kindred nature. The practice of forbidding fresh vegetables and fruit is especially open to objection. These articles, in addition to their use in promoting the peristaltic action (or movements) of the ntestines, have important anti-scorbutic (or scurvy-preventing) virtues; and although in these days, and among our own people, we almost never meet with fully-developed scurvy, we are probably, without knowing it, often in the presence of incipient or larval scurvy."

These are wise counsels, as also are those which follow. "I have sometimes observed," says Dr. Roberts, "the existence of a low standard of health without any very definite symptoms, which I could only attribute to a too protracted abstinence from fresh vegetables and fruit. I think it is possible to go too far in humouring a capricious stomach; and that, in persons of a hysterical or neurotic (or nervous) constitution, a too indulgent consideration for this organ may entail disadvantages in regard to the general nutrition of the body, and produce effects which, in the long run, tend to lower the level of health, and even to aggravate that gastric (or digestive) sensitiveness which we are seeking to abate."

There are few persons who will not re-echo the truth of these latter remarks. Many persons cause illness through a nervous and hysterical regard as to their food. They are perpetually thinking before they eat whether this diet will agree with them, whether that may not be too rich, or this too lowering, and so on. There is a form of indigestion which is really the offspring of over-sensitiveness on this head; the product of too much consideration being given to possible or probable evils which, at first, are non-existent, but which, in due time, come to exist as the result of the nervous fears with which the stomach has actually become imbued. These cases are among the most difficult with which the physician has to do. It is not that there is actual disease, for, in many cases, no organic disturbance of digestion exists. Even where there does exist an actual ailment, this has been caused by the nervous fears of the patient, and the cure is rendered all the more difficult because of the labour of removing the ideas regarding his own ailment which lie at the root and foundation of the patient's complaint. The recognition of these facts may be of personal service to many readers, since it is largely from the side of the patient's own common sense that his relief and cure must proceed.

A feature of special value in Dr. Roberts' remarks consists of his enunciation of the results he himself obtained from experiments made to test the effects of certain "accessories" of foods on digestion. These consist of *alcohol*, *tea*, *coffee*, *and cocoa*. Our author made a series of tests regarding the action of these substances upon digestion in the mouth and upon digestion in the stomach. In the mouth, we may remind our readers, the food is subjected to the action of the *saliva*, which has the duty of converting the starchy parts of our dietary into grape-sugar. In the stomach, the gastric juice acts chiefly upon the nitrogenous parts of the food, and converts these substances—represented by the *albumen* of meat-juice, the *casein* of milk, the *gluten* of flour, the *fibrin* of blood, &c.—into substances called *peptones*. The latter bodies pass easily through the walls of bloodvessels, and are thus readily absorbed into the blood.

Digestion in the mouth and digestion in the stomach are thus very different actions, even if—as they undoubtedly do—presenting themselves as two parts of one function—that of "digestion" at large, which means the conversiod of the food into matters capable of being added to the blood, so as to renew and repair that fluid. The importance of Dr. Roberts' experiments on the action of our common beverages upon our food and digestion is, however, of such high character that we must devote a special article to the description of the results at which he arrived.

CYCLING NOVELTIES AND IMPROVEMENTS.

By Sigma Smith.

A NEW STEERING-GEAR.

One of the most ingenious productions this year in the way of cycling has been the new steering-gear introduced by Thomas Smith & Sons, of Saltley Mill, Birmingham, which is to be seen at the branch establishment, 22, Holborn-viaduct, London, E.C.

The ordinary form of steering with a rod actuated by a ratchet has several disadvantages, the principal being the need for a constant grip upon the steering-handle to keep the wheel in its proper course, and another in the rattle that seems to be inseparable from the ordinary steering-rod.

In the new steering, however, all this is done away with, and the moving parts can always be kept tightly fitted, while the arrangement keeps the wheel in a true line whether the directing-handle be left hold of or not.

The arrangement consists of a rod with an endless screw-worm at the steering-wheel end, the turning of which pushes the lever that turns the wheel backward or forward, as may be desired, and thus turns the wheel and steers the machine. The steering-rod is really a revolving shaft, and the part at the fore-end practically acts in the same way as the screw-brace and bits we see in the American novelty shops, the sliding part on the worm representing the lever attached to the top of the steering-wheel, and the screw-worm itself is continued as a rod to its junction with the steering-handle by the side of the rider.

This handle terminates at the bottom in a bevel cog-wheel, the teeth of which bite into a corresponding bevel cog-wheel at the end of the steering shaft, and by turning the handle the steering-shaft, which runs at right angles forward, is turned just as the propeller shaft of a steam-launch is turned.

It is impossible for the steering-wheel to be moved unless the steering handle be turned, as the endless worm keeps the wheel perfectly immovable.

Put a large spoonful of black currant jelly into a tumbler, and fill it up with boiling-water for a good fever-drink. When cold, it is ready for use.

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

THE REMEDIES OF NATURE.

By Felix L. Oswald, M.D.

THIRD PAPER.

A combination of the three specifics—exercise, abstinence, and fresh air—will cure the most obstinate cold; only, the first signs of improvement should not encourage the convalescent to brave the atmosphere of a lung poison den. So-called chronic catarrhs are, properly-speaking, a succession of bronchial fevers. The popular idea that an average "cold" lasts about nine days, has some foundation in truth. Like other fevers, catarrhs have a self-limited period of development, but the recovery from the first attack constitutes no guarantee against an immediate relapse; on the contrary, the first seizure appears to prepare the way for its successors. A long sojourn in an absolutely pure atmosphere, as in a summer camp on the mountains, seems for a while to make the lungs catarrh-proof, by increasing the vigour of their resisting ability, and the returned tourist may find to his surprise that the air of his family den can now be breathed without the wonted consequences. But the addition of a stove or a double window at last turns the scales against Nature, and the first malignant cold reproduces the sensitiveness of the respiratory organs.

After recovery from a chronic catarrh the danger of contagion should therefore be carefully avoided. In many of our cities ill-ventilated reading-rooms are veritable hot-beds of lung-poison, as are crowded court-rooms in the villages, and taverns and quilting-assemblies in the back-woods. Meeting-houses, with their large windows and small, rarely-used stoves, are less dangerous; but stuffy school-rooms are as prolific of colds as swamps of mosquitoes, and often counteract all sanitary precautions of the domestic arrangements. Stuffed railway-cars, too, could claim a premium as galloping-consumption factories; and after dark the retreat to an over-heated "Pullman sleeper" would hardly increase the chances of longevity; the best plan for long-distance travellers would, on the whole, be to secure a rear seat, where open windows are less apt to awaken the groans of air-fearing fellow-passengers, and risk cinders and smoke rather than the miasma of the galloping man-pen.

Galvanism *v.* Nervous Exhaustion.—Pulvermacher's world-famed Galvanic Belts for the cure of nervous diseases have received testimonials from three Physicians to her Majesty the Queen, and many eminent members of the Royal College of Physicians, London. Dr. James Wilson, of Liverpool, M.D. and M.R.C.S., says:—"I have used Mr. Pulvermacher's Belts now for many years in cases of amenorrhœa and intestinal obstructions, and I know of no remedy in the present day so efficacious as Pulvermacher's Belts in the treatment of these cases that so frequently come under the notice of the physician, and in which medicine seems so powerless. I should like to see Mr. Pulvermacher more warmly supported by the profession, as I feel sure that many of my medical brethren are unaware of the powerful adjunct we have in the treatment of many diseases by the use of the 'Pulvermacher' Belts."—Messrs. J. L. Pulvermacher & Co., the eminent Medical Galvanists, who have had 36 years' experience in the treatment of Nervous Diseases, give advice daily at their Galvanic Establishment, 194, Regent-street, W., free of charge, and patients who are unable to call should write describing their symptoms, when medical pamphlet and advice will be sent *post free*. Pulvermacher's "Treatise on Nervous Exhaustion, Physical Debility, and Loss of Vital Energy," with testimonials received from medical men and private patients all over the country, sent post free on application to J. L. Pulvermacher's Galvanic Establishment, 194, Regent-street, London, W.

It would be a mistake to suppose that "colds" can be propagated only by direct transmission or the breathing of recently-vitiated air. Catarrh-germs, floating in the atmosphere of an ill-ventilated bedroom, may preserve their vitality for weeks after the house has been abandoned; and the next renter of such a place should not move in till wide-open windows and doors and a thorough draught of several days has removed every trace of a "musty" smell.

If a bronchial catarrh is accompanied by a persistent *cough*, it indicates that the affection is deep-seated, and that it has probably spread to the upper lobes of the lungs. Arm-exercise and a mild saccharine diet generally suffice to loosen the phlegm and thereby remove the proximate cause of the evil. But, if those remedies fail, there is a presumption that the chronic character of the affection is due to a permanent external cause of irritation, which can be removed only by a change of air. In such cases cough-syrups merely palliate the evil. Medicines, counter-irritants, and fasting are in vain, if the lungs of the patient are constantly impregnated with new morbific germs; even exercise can do little more than alleviate the distress of the symptoms; a radical cure is impossible as long as every night undoes the work of the preceding day. In a home of prejudices, the patient should at once change his bedroom and take care to profit by the change.

A neglected catarrh may result in an attack of *pleurisy*. Each lung is inclosed in a sac-like serous membrane, which connects with a similar membrane lining the inner surface of the chest. This double integument, known as the *pleura*, communicates both with the lungs and with the upper air-passages, and is more or less affected by every morbid condition of the respiratory organs. *Pleurisy*, or the congestion of the pleural membrane, is generally an inflammatory complication of a chronic catarrh. The original affection may have apparently subsided. Counter-irritants, alcoholic tonics, &c., have subdued the cough; with the exception of an occasional uneasiness about the chest, the condition of the patient seems greatly improved; only an abnormally rapid pulse justifies a suspicion that the smothered fire has not been wholly extinguished. A change of residence, or plenty of out-door exercise may perhaps ratify the sham-cure. A normal pulse would give assurance that the masked fever has really subsided. But under less favourable circumstances an oppressive heat and a strange feeling of uneasiness will some day announce the approaching crisis of the latent disorder. Chills follow at shorter and shorter intervals, and at last a pricking pang in the region of the upper ribs reveals the seat of the affection. Breathing soon becomes so painful that the patient finds no rest in a horizontal position, but has to sit up in his bed, and may feel sorely tempted to relieve his distress by invoking the aid of the drug-gods. For believers in the remedial resources of Nature, pleurisy is, indeed, a crucial test of faith, and Dr. Isaac Jennings's observations on his experience during an acute attack of the disease deserve to be framed in every hygienic sanitarium.

"For twelve hours," says he, "breathing was at best laborious and painful, confining me to nearly an erect position in bed; but the distress occasioned by efforts at coughing was indescribable. The confidence of my wife in the 'let-alone' treatment, which had been strengthening for years, and had carried her unflinchingly through a number of serious indispositions, on this occasion faltered; and she begged me to let her send for a physician to bleed me or do something to give, at least, temporary relief; 'for,' said she, 'you *can not* live so.' In my own mind

there was not the least vestige of misgiving respecting the course pursued.

"In view of the constitutional defect in the pulmonary department of my system, and the nature and severity of the symptoms, it appeared to me very doubtful whether the powers of life would hold out and be able to accomplish what they had undertaken and put me again upon my feet. But I felt perfectly satisfied that whatever could be done to good purpose would be done, by 'due course of law.' My mind, therefore, was perfectly at ease in trusting Nature's work in Nature's hands. There was no danger in the symptoms, let them run as high as they would. They constituted no part of the real difficulty, but grew out of it. The general movement which made them necessary was aiming directly at the removal of that difficulty. Instead, therefore, of being troubled with the idea that I could not live with such symptoms, my conviction was very strong that I could live better with them than without them.

"In the morning, ten or twelve hours from the beginning of the cold chill, there was some mitigation of suffering, which continued till afternoon, when there was a slight exacerbation of symptoms; but the heaviest part of the work was accomplished within the first twenty-four hours. From that time there was a gradual declension of painful symptoms till the fifth day, when debility and expectoration constituted the bulk of the disease.

"Full bleeding at the commencement of the disease, followed by the other 'break-up' means usually employed in such affections, would have given me immediate relief, and, by continuing to ply active means as the work was urged on (for there would have been no stopping of it, short of stopping the action of the heart), the strongest, most distressing, and critical part of the disease might have been pushed forward to the fifth day; and I might even then possibly have recovered. But, granting that my life would have been spared, I suffered much less on the whole under the 'let-alone' treatment than I should have done under a perturbating one, besides having the curative process conducted with more regularity, made shorter, and done up more effectually" ("Medical Reform," p. 312).

There is a very common mistake made in keeping sweet butter, namely, in water. This very quickly injures the flavour of it. It should be kept in a cool airy place, but perfectly dry. When butter is made up in small fancy shapes, and kept for two or three days in water, the flavour is affected, and the butter more or less injured.

Medicine and Pharmacy in Belgium.—The second edition of the *Belgian Pharmacopœia* has now been published, and a Royal decree promulgated concerning pharmaceutical chemists and medical men. Amongst the various provisions, we note that "it is forbidden to medical practitioners, when they are not authorised to keep a drug-depôt, to interfere in any way, direct or indirect, with the preparation and sending out of medicines, with the single exception of those employed in the treatment of venereal affections, provided always that they have been prepared by a pharmaceutical chemist, and have affixed to them a special ticket, with which it is obligatory to furnish the customer." Practitioners who are authorised to supply medicines to their patients are forbidden to keep an open shop, and their medicines must be bought from a pharmaceutical chemist. On the other hand, chemists are not allowed to treat diseases in any way whatever, nor to prescribe or to administer medicines. They are not permitted to have more than one shop, and they are compelled to keep certain medicines and apparatus always at hand, and in good condition.

Public Health

"Health is the first Wealth."—*Emerson.*

OUR AMBULANCE LECTURES:

What to do in Emergencies and Accidents before the Doctor comes.

By Various Writers.

XXV.—BANDAGING. (*Continued.*)

By J. Maxwell Ross, M.A., M.B., F.R.C.S.E.

With a few exceptions, roller bandages are applied either in the form of a *Spiral* or of a *Figure of Eight.* The latter, which is also known as the Spica from its fancied resemblance to the spike or spathe of flowers, is the bandage used for the different joints (Figs. 10, 11, 12, see future papers). The parts of the limbs between the joints, the fore-arm and upper-arm, the leg and the thigh, are bandaged by means of the Spiral, which may be applied either as a

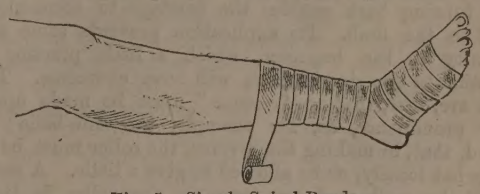

Fig. 5.—Simple Spiral Bandage.

Simple (Fig. 5) or a Reverse bandage (Fig. 6), or if a double roller be used, as a Double Spiral. The latter bandage is seldom put on, and is really more curious than of practical use. We may, therefore, disregard it altogether.

The simple spiral is very easily applied, and would be the only kind of bandage required were our limbs in every

Fig. 6.—Reverse Spiral Bandage.

part of the same circumference. The increase in circumference, as we proceed upwards, renders the reverse spiral necessary. How is the simple spiral put on? Fig. 5 shows this pretty clearly. Suppose we take the limb in the illustration—the right leg. The bandage is represented as having been begun on the inside of the foot, and wound spirally round foot and leg above the ankle till the calf is reached. It will be seen that these turns or "spirals" lie closely against the skin; the upper half of each is covered by the one following it, so that a uniform distance is preserved between the lower edges. There is no puckering, or, as it is sometimes called, "pocketing;" and no part of the skin, excepting the heel, remains uncovered; in fact, each part is twice covered, as the upper half of every turn is covered by the lower half of the turn immediately above. If,

To Inventors.—Inventions protected by Royal Letters Patent at lowest rates. Provisional protection for nine months, £2. For all information concerning Patents address Messrs. Lulman & Co., Patent Agents, 8, Essex-street, Strand, London, W.C.—[Advt.]

however, we try to go further up the limb with our "simple spirals," we find ourselves in a dilemma. If we follow the rule of applying the bandage closely to the skin in all its width, we get a result somewhat like that shown in Fig. 7.

If, on the other hand, we endeavour to cover in the whole of the calf, the turns are "pocketed" at their lower edges—they do not lie against the skin in their whole width—and, as a consequence, the bandage is the reverse of neat and comfortable. How are we to get out of our dilemma? Simple spirals are of no use, but the reverse spiral comes at once to our aid. A "reverse" is nothing

Fig. 7.—How not to do it.

more than a simple spiral *turned back* upon itself (Fig. 6). This turning back enables the bandage to accommodate itself to the limb. Its application prevents some slight difficulty to the beginner, which a little practice and attention to two simple rules will soon overcome. These rules are, first, that no "reverse" must be made upon a bony prominence, as, for example, the shin-bone; and, second, that, in making the reverse, the roller must be held somewhat loosely, or be allowed to give a little. A reverse cannot be well made so long as the roller is tightly held. The making of the reverse is assisted by putting the thumb or finger on the bandage (as shown in Fig. 6), though this is not essential, as it can be made without. The beginner will probably find it best, however, to do it as illustrated. When are reverses to be made? As soon as we find that simple spirals will no longer accommodate themselves, or lie closely to the limb.

Let us now consider what forms of the roller bandage are applicable to the various parts of the body. We may commence with the *foot and leg*, as these are the parts usually first given to a beginner to practise upon. The

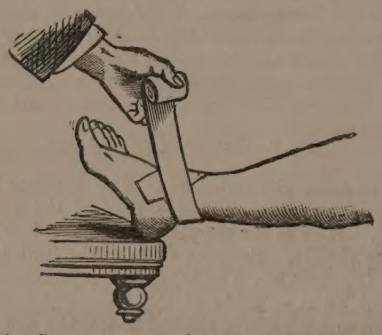

Fig. 8.—Commencement of Ankle and Leg Bandages.

operator must place himself in front of the patient, whose heel, a part that is rarely covered by a bandage, should rest on a footstool (Fig. 8.) If the right foot is the one to be treated, the roller should be taken in the left hand; if the left foot, in the right hand. It may be well to repeat that this is not essential. The right leg may be bandaged by the right hand, but the bandage will then have to be commenced from the outer side of the foot, which, to a certain extent, spoils the appearance of it when finished. The end of the bandage is unrolled a little way, its outer side placed next the skin on the inner side of the foot, and a figure of 8 is formed by carrying it round the front of the ankle by the outer side to the tendon at the back of the heel, thence by the inner side to the front of the ankle again, where the first part of the bandage is crossed, from this point to the outer side of the foot beneath the sole to the inner side where the commencement of the turn is covered in. This is repeated two or three times, each turn after the second being carried further up the limb, to the extent of one-half or one-third of the width of the bandage.

When the ankle has been covered in in this way, a few simple spiral turns are taken till the calf is reached. It is then necessary to make reverse spirals to accommodate the bandage to the limb; but, after the thickest part is passed, simple spirals will be found sufficient. The bandage must then be fixed by a stitch or a pin. If a pin be preferred, it should, if possible, be a safety one. Sometimes it is necessary to commence the bandage nearer the toes than is shown in Fig. 8. In that case a simple spiral should be made across the top of the foot, commencing at

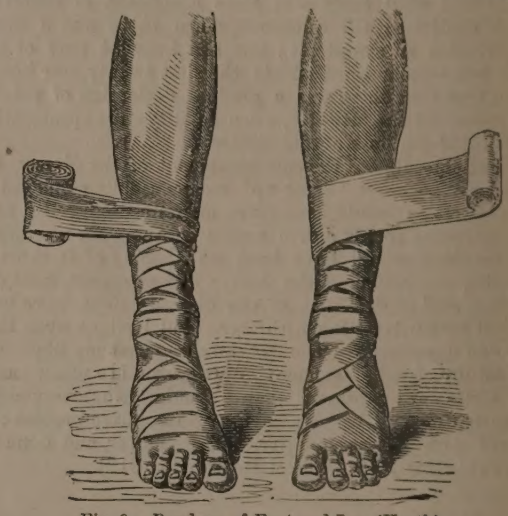

Fig. 9.—Bandage of Foot and Leg (Heath).

the ball of the great toe (Fig. 9.) This is to be followed by a few reverse spirals till the instep is pretty well covered, then the figure-of-8 turns may be begun round the ankle, and the bandage continued up the leg as described.

A NEW process of hardening plaster of paris, so that it may be used, among other purposes, for floor parquetting, is described by M. Julhe. It consists in mixing the plaster of paris before using for casting with one part in six of finely-sifted, recently slaked lime, and saturating the well-dried casting with a solution of sulphate of a base, giving an insoluble precipitate with lime. Sulphate of zinc and sulphate of iron are both suitable. The zinc sulphate gives a white material, while that containing iron is at first greenish, but upon drying takes the characteristic colour of ferric oxide. A coating of burnt linseed oil converts this into a mahogany colour, and a coat of copal varnish gives a fine surface. The casting should be well dried before treating it with the sulphate solution, and after being immersed not longer than two hours it should again be dried; it may then be replaced in the solution until the saturation is complete. It is said to resist atmospheric influences, and when sulphate of iron is used the resistance to fracture is said to be twenty times greater than in ordinary plaster.

Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."
—*Charles Mackay.*

A MAD STONE.

"Science" has the following account of a curious superstition, sent by a correspondent, Mr. F. A. Sampson, of Sedalia, U.S. :—

"The *Sedalia* and other papers lately contained accounts of the application of a 'mad stone' to a Mr. Girard, of this city, who had been bitten by a supposed mad dog.

"The stone was owned by Mr. J. M. Dickson, of Kansas city, who advertises the use of the stone, and states that it has been in possession of his family for more than a hundred years, and was brought by one of the family from Scotland. From the large number of references given in Mr. Dickson's advertisement to the mayor and other officials, and physicians of Kansas city, we may take it as true that Mr. Dickson is honest in his belief as to the virtues and history of the stone.

"To a reporter Mr. Dickson made a statement that he had applied the stone to more than five hundred cases of bites by various kinds of mad animals and wild skunks; his opinion evidently being, that the bite of this animal, whether rabid or not, will produce hydrophobia. He gave the method of application, which was to place the stone upon the wound, or upon an abrasion of the skin made on any part of the body, first soaking the stone in sweet milk. He stated that if the person contained any virus, the stone would adhere to the wound or abrasion until it was saturated with the poison, when it would fall off; and that it was then cleaned by again soaking it in sweet milk, and this was repeated until the stone would no longer adhere.

"We may presume that of the five hundred treated by him, a large number had been bitten by animals which were not mad; and statistics show that of those bitten by dogs which are mad, not more than one-third to one-half will have hydrophobia; and yet we can hardly suppose that of five hundred persons who believed themselves to be in danger of hydrophobia, not one would have taken it even if no preventive measures had been taken. Mr. Dickson states that no case treated by him has developed into hydrophobia.

"At the time of Mr. Dickson's visit to Sedalia, I had the opportunity of seeing the stone for a few minutes, and found it to be a fossil coral of the genus *Favosites*. It was of rather small size, only about three-fourths of an inch across, and was of hemispherical shape, with one side cut so as to present a smooth surface. The fossil seemed to be silicified, a part of the tubes being filled almost to the ends, and a part open. The tube cavities on the flat surface generally presented open spaces between the diaphragms or tabulæ, making the stone more or less cellular or porous. From the slight examination I made of the stone, I judge it to be *Favosites gothlandica Lam.*, if from Scotland; and, if it is American, *F. hemisphericus Y.* and *S.*

"I have since seen Mr. Girard; and I learn from him, and also from the Sedalia agent of the Adams Express Company, that the stone was first soaked in sweet milk without having any effect upon the colour of the milk. It was then applied to the arm, and adhered so tightly, that, on turning the arm over and shaking it, the stone still clung to it. About three times the stone was taken from the arm and soaked in milk, and it then turned the milk a greenish colour. At last the stone would no longer adhere to the wound, and the cure was pronounced complete.

"Has any competent person made proper tests of reputed mad stones? Are these persons mistaken about the stone adhering tightly? Would any similar porous stone adhere the same way? Are the persons also mistaken about the change in the colour of milk? In short, will any stone have any effect on virus in a person's blood?"

[To these queries we should unhesitatingly answer that no stone can have any such virtues on the effects of animal bites, and more especially on the effects of "mad" dog bites. The stone may adhere tightly by means of a vacuum —that is, by atmospheric pressure. There is nothing inconceivable in this latter part of the statement, but it will require exact evidence, such as is not likely to be forthcoming, that the mere application of a stone can avert any effect upon a subtle poison which is circulating throughout a person's blood, and over which all local measures can possess no power whatever.—Ed. H.]

The Permanent Exhibition, Registry, and Agency of Approved Architectural Appliances and Inventions.—Examples on view of perfect Sanitation, Ventilation of Drainage, Disconnection of House-drains from Sewer, Spray, and other Baths, Stoves, Wall-hangings and Decorations, Tile-work, Locks, Furniture, and various descriptions of House-fittings. Admission Free.—Stephen S. Phillips, Manager, 10, Baker-street, Portman-square, London, W. —[Advt.]

HOUSEHOLD DANGERS.

There are two or three volatile liquids used in families which are particularly dangerous, and must be employed, if at all, with special care.

Benzine, ether, and strong ammonia constitute this class of agents. The two first-named liquids are employed in cleaning gloves and other wearing apparel, and in removing oil stains from carpets, curtains, &c. The liquids are highly volatile, and flash into vapour as soon as the cork of the vial containing them is removed. Their vapours are very combustible, and will inflame at long distances from ignited candles or gas flames, and consequently they should never be used in the evening, when the house is lighted. Explosions of a very dangerous nature will occur if the vapour of these liquids is permitted to escape into the room in considerable quantity. In view of the great hazard in handling these liquids, cautious housekeepers will not allow them to be brought into their dwellings, and this course is commendable.

As regards ammonia, or water of ammonia, it is a very powerful agent, especially the stronger kinds sold by druggists. An accident in its use has recently come under our notice, in which a young lady lost her life from taking a few drops through mistake. Breathing the gas, under certain circumstances, causes serious harm to the lungs and membranes of the mouth and nose. It is an agent much used at this time for cleansing purposes, and it is unobjectionable if proper care is used in its employment. The vials holding it should be kept apart from others containing medicines, &c., and rubber stoppers to the vials should be used.

Oxalic acid is considerably employed in families for cleansing brass and copper utensils. This substance is highly poisonous, and must be kept and used with great caution. In crystalline structure it closely resembles sulphate of magnesia, or epsom salts, and therefore frequent mistakes are made, and lives lost. Every agent that goes into families among inexperienced persons should be kept in a safe place, labelled properly, and used with great care.

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

IMPROVEMENTS IN GAS-LIGHTING.

By W. Sugg.

With improvements in gas-burners we may expect to light rooms perfectly with a less expenditure of gas than we now do. But we cannot light a room without in some measure creating heat, and I think I have shown that we want this heat at the ceiling line for the greater part of the year. In summer we do not use gas for many hours, but, on the other hand, it is more difficult with an outside temperature at 65 deg. or 70 deg. Fahr., to keep the air in proper movement in small rooms. There are also times in the fall of the year, and also in the spring, when the nights are unusually warm, and with a few friends in our rooms the lighting becomes a "hot" question, not to say a "burning" one. On these occasions we have to resort to exceptional ventilation, which for every-day life would be too much. It is then and on summer nights that the system of ventilation by diffusion is most useful.

To explain it, when two volumes of air of different temperatures or specific gravities find themselves on opposite sides of a screen or other medium, of muslin, cloth, or some more or less porous substance, they diffuse themselves through this medium with varying rapidity until they become of equal density or temperature. Therefore, if we fill the upper part of a window (which can be opened downward) with a strained piece of fine muslin or washed common calico, the air in the room, if hotter than the external air, will, when the window is more or less opened, pass out readily into the cooler air, and the cooler air will pass in through the pores of the medium. The hotter air passing out faster than the cooler air will come in, no draught will be experienced. The window may be opened very widely without any discomfort from it.

It is, of course, quite impossible, in the limits of a paper, to do more than indicate a means of ventilation which will be effective under most circumstances of lighting with those gas-burners and fittings usually employed, and which will lend itself readily to modifications which will be necessitated by the use of some of the newest forms of burners and ventilating gas-lights.

In conclusion, I wish to draw attention to an important discovery I have made in reference to blackened ceilings, for which, up to the present time, gas has chiefly been blamed. I have long entertained the belief that with a proper burner it is possible to obtain perfect combustion without any smoke; and a series of experiments with white porcelain plates hung over some burners used in my own house proved conclusively that the discoloration which spread itself all over my whitewash ceilings arose from the state of the atmosphere, which in all large towns is largely mixed with heavy smoky particles, and from the dust or dirt created in rooms by the use of coal-fires as well as from the smoke which, more frequently than one is at first disposed to imagine, escapes from the fireplace into the room.

I therefore, in two of my best rooms, which required to have the ceilings whitened every year, substituted varnished paper ceilings (light oak paper, simply put on in the usual way, and varnished) for the usual whitewash. I also substituted gas-fires for coal-fires. These alterations have gone through the test of two winters, and the ceilings are now as clean as when they were first done. The burners have been used every night, and the gas-fires every day, during the two winters. No alteration has been made in the burners used, and no "consumers" have been used over them. If the varnished paper ceilings are tried, I am sure that every one will like them better than the time-honoured dirty whitewash, which is simply a fine sieve. This fact is clearly shown by the appearance of the rafters, which, after a short time, invariably show themselves whiter than the spaces between.

The products of combustion from coal-gas (which are steam and carbonic acid mixed with an infinitesimal quantity of sulphur) are, proportionately, far less injurious to animal life than the products from an equal illuminating power derived from either oil or candles; but they are, however, it is certain, destructive to germ-life; and, therefore, if taken off from the ceiling level, where they always collect if allowed to do so, no possible inconvenience or danger to health can be felt by any one in the room. But in our endeavours to take off the foul air at the ceiling, we encounter our first serious checks in all schemes of ventilation. We draw the elevation and section of the room, and put in our flues with pretty little black arrows flying out of the outlets for vitiated air, and other pretty little red arrows flying in at the inlets; but when we see our scheme in practice, the black arrows will persist in putting their wings where their points ought to be; or, in other words, flying into the room instead of flying out of it.

For final disinfection of a room, Dr. J. W. Miller, of Dundee, says nothing equals sulphur. For hand disinfection, carbolic solution one in twenty, acetic acid and sulphur*ous* acid are almost thoroughly effective.

Cholera Hints.—If the excretions of cholera patients be permitted to enter drains having communication with the hospital and neighbouring houses, or to reach the water supply, however disinfected, there will be undeniable risk. If, on the other hand, they be destroyed by fire, the danger, if any, will be reduced to a minimum. This is a precaution which in all places should be adopted. If vigorously carried out, it would go a long way to restrain the propagation of the disease. The following is a cholera mixture of repute in the treatment of this disease:—Tincture of opium, tincture of camphor, tincture of capsicum, of each one ounce; chloroform, three drachms; alcohol, two ounces; mix. Dose, one teaspoonful after each movement of the bowels.

The Æolus Waterspray and General Ventilating Co., 235, High Holborn, have received instructions to apply their complete system of inlet and outlet ventilation to the new composing-rooms and stereo-foundry of the *Morning Post*. This is the third London "daily" which has entrusted the ventilation of its printing premises to the Æolus Company—the other two being the *Daily Telegraph* and the *Daily News*. Amongst other recent applications of the Æolus system are—St. Raphael's House of Charity, Bristol; the School Board Offices, Wolverhampton; Clifton Church, York; the Commercial Bank of Scotland, Edinburgh; the Post-office, Canterbury, for H.M. Office of Works; the Heneage Board Schools, near Grimsby; Anerley Board Schools, &c., &c.

An Important Health Tract.—A Short Catechism on the Cholera, by Dr. Thomas J. Hutchinson, reprinted from Health, and adapted for distribution by Health Societies, City Missionaries, and all interested in the diffusion of health-knowledge among the masses. Ten copies for 9d.; 20 for 1s. 3d.; 50 for 2s. 6d.; and 100 for 4s., post-free, to be obtained from the Publisher, Health Office, 74, Great Queen-street, W.C.—[Advt.]

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

A New Cheese.—It is stated in one of the Swiss agricultural journals that a new cheese is being manufactured in Switzerland, the inventor and manufacturer of which is M. Reber. It appears that the milk is heated to a temperature of eighty-six deg. to eighty-eight deg. Fahr. for some twenty-five or thirty minutes, when the colouring material and rennet are added. When the curd is fit to break, it is broken and placed in linen cloths, and then into the moulds, which vary in size according to the quantity of curd that is dealt with. It is next pressed, but as it is yet somewhat soft, it is generally found best to place it in a bath for five or six minutes, the temperature of which is between 127 deg. and 131 deg. Fahr. The crust of the cheese becomes hardened, although the character of the interior changes very little, and in this way the preservation of the cheese is much more easy. It is next pressed for twenty hours, after which it is steeped in brine from three to six days. This brine is made in the proportion of nine pounds of water to two and a quarter pounds of salt; but care is necessary in the salting operation to see that the cheese has more or less salt, according to the exigencies of the case. M. Reber says his actual profit is about ten or twelve per cent., and considering that a quantity of whey is left in the cheese in the process of manufacture, he does not think it is at all a bad return. The average price of the cheese, which becomes more and more pungent with age, is from 1s. 2d. to 1s. 3d. the kilogramme—2¼ lb.—*Grocer.*

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Dangers to Health in Houses.—When examining houses (especially those built some years ago) for smells, the source is very often found to be in a cellar. The other day, when looking over a noble earl's house in the west-end of London, a wine-cellar was found to have two bell-traps, devoid of water, and air from the drains passing through with sufficient power to blow out a candle. Next door was the beer-cellar (both cellars being nearly in the centre of the house), and another bell-trap was found there. But this having been improperly used by the men-servants as a urinal no smell was passing from the drain. But the smell of the other matter was so strong as to make the eyes run with water. I have frequently had to complain of cellar-traps being used for this purpose, and for that reason always advise their entire removal. Whenever there is a complaint of a smell in a butler's pantry or footman's cleaning-room, these being also used as sleeping-rooms, it is frequently found that no proper convenience is provided for the men's use, but a sniff inside the sink generally tells how that trouble is gotten over.—*Sanitary News.*

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Chinese Eggs.—Visitors to the "Healtheries" last year, who thought they sounded the depths of Chinese cookery by dining a few times at the Chinese pavilion, would appear to have been mistaken. Not to mention other aristocratic dishes, they did not taste rotten eggs—at least, we do not recollect that these were in any of the *menus*, although they are among the delicacies of all properly-organised Chinese banquets, and much more care is devoted to bringing the eggs to the proper state of putrefaction than we ever devote to keeping them fresh. Ducks' eggs are taken by preference, and placed in a mixture of quicklime, ashes, potash, salt, and decaying vegetable matter, which is worked up into a kind of pudding. They remain here a month or six weeks, and are then fit for the table of the gourmand. There is a popular belief among Europeans in China that the eggs are buried in the earth for 150 years; but this is a delusion. A gentleman who recently told the Anthropological Society of France all about these delicacies, stated that he tried to eat one in order to be able to describe his sensations, but he confesses that he was fairly driven off the field, leaving the egg victorious. Thereupon a member of the Society observed that we must not throw stones at the Chinese; or rather at the Chinese eggs; for look, he said, at our own cheese! And another remarked that the Chinese did not know everything, for while they allowed the eggs to cook themselves in the mixture in which they were embedded, people in the Philippine Islands put the eggs in ashes, and then employed men, whose special occupation it was, to sit on them in order to keep the heat up to the necessary degree. Sitting on eggs is not a form of industry which has yet appeared in Europe, and herein the Philippine Islanders have the advantage of us Westerns.

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Insanitary Dwellings in London.—Mr. Skegg, medical officer of health to the district of St. Martin's-in-the-Fields, last Saturday applied to Mr. Flowers, at Bow-street Police-court, to order the closing of a building which had been recently constructed, and which consisted of fifty-four rooms inhabited by as many as 145 persons. It was stated that the rooms were very small, and were kept in a filthy condition; the rooms in the basement were dark and unfit for habitation; for three or four days a week no water could be obtained for cleansing the premises, and there was hardly any for drinking purposes. It was of no use to speak to the landlord, and notice had been served, but no steps had been taken in the matter. Again, a letter signed "Sanitary" appeared in the *Times*, describing the condition of a house in a crowded part of Marylebone. As many as ten families, representing fifty persons, dwelt in this house, for which there is but one watercloset, and this has been without water-supply for at least nine years. The place was described as sickening and filthy in the extreme, the yard attached to these premises in wet weather being flooded with a mixture of water and sewage. The owner of this rookery, we are told, is a member of the Metropolitan Board of Works. Such is the condition of the premises referred to in last week's newspapers, and there is no doubt they are not exceptional. In the first case the sanitary authority has done its duty; in the second there has been obvious neglect. The need for a larger staff of inspectors is known to everyone who has had experience of the sanitary wants of the metropolis, but the authorities themselves are slow to adopt a course which adds, even in a small degree, to taxation, and which interferes with the personal interests of many of their members. It is no matter for surprise that the present system of London government is almost universally condemned.—*Lancet.*

Sanitary Inspections.—Fee for Survey and Report, in London 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

The International Inventions Exhibition.—The Executive Council of this Exhibition have completed arrangements with the whole of the Railway Companies of the United Kingdom whereby parties numbering twenty-five and upwards can from the present time and until the close of the Exhibition, obtain at greatly reduced rates through tickets, combining the journey to London, carriage over the Underground Railways, passage through the South Kensington Subway, and admission to the Exhibition and back. Application for these facilities should be made to any Station Master in the country.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

HEALTH AT SCHOOL.

School Hygiene and Diseases Incidental to School Life. By Robert Farquharson, M.P., M.D., F.R.C.P., &c. (London: Smith, Elder, & Co. 1885.)

Dr. Farquharson formerly enjoyed exceptional opportunities of making acquaintance with public school life, inasmuch as he occupied for a time the important position of Medical Officer to Rugby School. Such an appointment must have formed a wide basis of experience necessary for the discharge of such duties as are included in the task of producing a trustworthy work on "School Hygiene." Now that the task has been accomplished, it may be said that the present volume will undoubtedly become the standard book on the subject of which it treats. There is no better book to be had in the entire *répertoire* of the medical man or teacher who wishes for information regarding the safe conduct of school-life in a sanitary sense. This much is due to be said at the outset of our notice of the volume. It, moreover, supplies a felt want in the literature of hygiene; and it is doubly welcome because it fills the gap in a thoroughly trustworthy manner.

Naturally, Dr. Farquharson deals specially with the public school life which in England is represented by Eton, Rugby, Harrow, Wellington College, and other institutions, and in Scotland by Fettes College, Trinity College, Loretto House, and like schools. It is the association of boys in educational colonies with which Dr. Farquharson therefore is concerned. The boys "live on the premises," so to speak, in such schools—in houses which form part and parcel of the establishment. The responsibilities involved in the management of such a system are, of course, very great, and that they are not limited to the health-side of things is also evident. The care of mind and morals, as well as the culture of health, form topics which intimately concern those in authority in a great school. It can be no light task to perfectly discharge all the duties, and to regulate fully and accurately all the conditions which are connected with the prosperity of the growing frame in all its phases. Judicious subdivision of duties, however, overcomes difficulties everywhere, which are insurmountable if taken *en masse*, or if encountered by a single mind. Hence, with the wisest of aims, and with signal success, the health-cares of our own public schools are made to devolve on the shoulders of responsible persons in the shape of medical officers.

A special training is no doubt necessary for the man who is to worthily fill such an office. He must be quick to detect feigned illness, and not slow to invalid the lad who "thinks there is nothing wrong" with himself, but in whom the physician's eye detects symptoms of disorder. Hesitation on the part of a medical officer of a public school in his treatment of a suspicious case of disease may land the whole school in an epidemic of measles or scarlet-fever. Quick and effective diagnosis of the existence of the disease and rapid isolation of the patient will save the health, it may be, of hundreds. The medical officer, again, must work cordially with his colleagues, and even with those who may not see eye to eye with him in many matters he may deem of essential nature. It is no light post, no sinecure this, which is found in the shape of the health-supervisorship of a great school. If only, therefore, as a clear guide to those who may hereafter be appointed to discharge such duties, the book before us may be warmly welcomed to its place in the fields of health-literature.

Through the respective subjects of school-buildings, school diet, school work, school play, the duties of the school doctor, and school diseases, the author leads his readers. The situation of the school is duly discussed, and the various items which concern the health of boys in relation to their school-home are fully detailed. A free situation, pure air, and detached buildings are included in the demands of the sanitarian. The author supports the plan of "separate houses." The masters each treat their inmates "as members of one family;" the barrack-life of the associated system, with all its trials, inconveniences, and discomforts is avoided; a domestic life is opened to boys; and above all, isolation, in the case of infectious diseases, is rendered possible. The topic of dormitories is fully discussed by the author. Iron beds are to be preferred; the mattress is to be of horsehair; handy lavatory arrangements are necessary; and, as regards space, Dr. Farquharson quotes from Dr. Duke, to the effect that:—"Taking a schoolbed at 3 ft. by 6 ft., the superficial area should be quite four times that—6 ft. by 12 ft.—and the room 12 ft. high;" so that there will be "over 3 ft. between each bed side by side, and 12 ft. between the beds on the opposite side of the room."

A polished floor is to be preferred. The lighting arrangements are also duly discussed, and the means of averting eye-troubles pointed out. "A separate laundry is an absolute necessity in every large school," says the author, and this opinion reflects the practical experience of all health-officers. Infectious disease has over and over again been spread through a school from a common laundry as a centre.

The question of "school diet" is treated in a plain, common-sense style by our author. Dr. Farquharson would make it "a law, unalterable as those of the Medes and Persians, that no work should be done on an empty stomach." Disregard of this rule leads to ailments in growing frames. He would give growing lads "a liberal allowance of nitrogenous food;" by which he means butcher's meat and allied substances. An abundant supply of fresh vegetables is a *sine quâ non* for school health, and prevents outbreaks of scurvy. Wise counsel is also given by our author to the medical officer who is consulted by lads wishing to distinguish themselves in sports and to undergo a course of "training." These remarks might be perused with great profit by all who have to do with the physical wants of bodies which are intended for the arena and its prizes.

One of the most interesting chapters of this book is that devoted to "School Work." Dr. Farquharson is no alarmist, but he recognises fully and freely the dangers of overwork. His remarks on this head we cordially commend to the notice of all parents and teachers. Equally interesting is the section on "School Play." This part of the book teems with wise counsels, and with much interesting information aptly conveyed.

The section on "The Duties of the School Doctor" introduces us to the consideration of the physician's personal relations to his work. Here it is that Dr. Farquharson's school-experience at Rugby fits in so thoroughly as to give him an authoritative place as a writer on this theme. That the school-doctor does not sleep on a bed of roses goes without saying, and that the mechanism of the school shall proceed harmoniously, there must be a perfect understanding of the doctor's relations to all departments. He has to work *en rapport*, not only with the headmaster and his colleagues, but with the boys, and through them with their parents, and with other medical practitioners. The

author impresses us with the clear idea that the school-doctor must be, firstly, a well-trained practitioner in surgery and medicine; secondly, a man of firm but gentle demeanour, and thirdly, a person of great tact and discretion. Perchance all these qualities are rarely to be found united in one individual; but there is no denying the fact that the doctor's success will largely depend upon the degree in which he unites in himself personally, such qualities and traits of education and character. "The school doctor, however," says the author, "will have little difficulty in holding his own on all occasions if he acts with sufficient firmness at first, and, putting his foot firmly down, refuses to budge an inch from the position which he has taken up. When he has definitely made up his mind on the line of treatment to be pursued, and made his arrangements accordingly, he must absolutely refuse to accept any suggestions from outside, or to alter any detail of his plan save on the suggestion of a superior professional authority to himself, and when he feels in the least doubt or difficulty, he should have no hesitation in proposing a consultation with the best man to be procured. In this way he will succeed in attracting or in retaining the goodwill and respect of all." From which it appears clear that "Mr. Facing-both-ways" would never have succeeded as a school-doctor.

The concluding chapter on "School Diseases" is of more purely professional nature, and contains hints highly valuable to the medical officer in charge of the young. The instructions on dealing with the infectious fevers in schools strike us as highly practical in their nature, and as singularly apt in their teachings. The author dwells with care on the premonitory signs and warnings of such ailments. It becomes of the highest importance that the school doctor should be able to detect the first symptoms of these diseases. He must be able literally to "nose"—as Miss Nightingale said she could smell small-pox being developed in hospital wards—the first traces of infectious disorders, and to nip their march in the bud by instant separation of his patients. There is no duty of the medical officer of a school so important as this task of cutting short the threatened epidemics which now and then will appear even in the healthiest school. An able summary of all the cases which ordinarily fall under the observation of such a medical officer is given by Dr. Farquharson. He shows, in truth, that the man who accepts the cares and responsibilities of school-health must be a clever, able, clear-headed, and resolute person. We would like to add that such a post deserves a very high rate of remuneration, and merits, when its offices are faithfully discharged, the best thanks of not only the doctor's colleagues in the school, but of the parents and guardians of the lads whose health he has supervised.

We end, as we began, by warmly advocating the perusal of this book by all engaged in the tuition of youth. There is no teacher who will not rise from reading it a wiser man than before.

Sanitary Appliances, Etc.

CHORLTON AND DUGDALE'S MATTRESSES.

Of the high importance of comfortable sleeping-arrangements in respect of a well-ventilated, airy bedroom, nothing need be said. We have come now-a-days to recognise that fresh air during sleep is as important a condition for healthy living as when we are awake. Indeed, more so, for we are literally at the mercy of the atmosphere amid which we sleep, while, when awake, we possess at least the power of changing our quarters when foul air oppresses our faculties. The importance of fresh air as a condition of healthy repose is not questioned, but that there are other conditions essential for the attainment of this important end is not so generally recognised. Foremost among such conditions we find the comfort of our couches. Humorous poets, from Horace and Pindar to Mr. W. S. Gilbert, in his description of the nightmare visions of the Lord Chancellor in "Iolanthe," have depicted the woes and sorrows of the man who "couldn't drop off to sleep." An uncomfortable mattress, one too soft or too hard; one which elevates one sleeper on the slope of a miniature mountain, while the other lies in the valley; one which creaks with the lightest movement of the sleeper, and one which is liable readily to get out of repair—as most "spring" mattresses do—it need hardly be said will cause even a sound sleeper to pray for the morning as an end to his vain efforts to woo the embrace of Morpheus. To wire mattresses and to spring mattresses at large many persons, mindful of sleepless nights, entertain well founded objections. It is true there is nothing worse than a badly-made mattress of this kind, or one constructed after conventional modes, which contrive to hit exactly the "how not to do it" of easy repose. But, conversely, there is nothing more comfortable than a scientifically constructed wire and spring mattress. No feather bed can compare with it for comfort and softness—no one who is wise, by the way, will ever repose on a feather-receptacle—no woollen or hair mattress can possibly equal it in comfort; it gives with the slightest movement of the body; it adjusts itself automatically to every movement of the sleeper; it is elastic without being over-flexible, and it is, above all, thoroughly sanitary in its nature. It provides for the free ventilation of the bed, and thus adds another important use to the comforts it places at our command.

Such perfect mattresses are those manufactured by the well-known firm of Messrs. Chorlton & Dugdale, of 19, Blackfriars-street, Manchester, and elsewhere. For some time past we have had under trial their "Excelsior" Spring Mattress and their "Swing" Woven Wire Mattress. Hence we are able to speak in very definite terms of the excellencies of these manufactures. Each is literally without a fault; and it is difficult to choose between them in point of comfort. The principle of the Excelsior consists of stout, carefully-tested wires, of special quality and make, linked together by springs, in a manner which combines the acme of flexibility with the maximum of softness, comfort, and durability. The special principle which has been aimed at in the construction of these mattresses is that of avoiding the fault commonly seen in other makes of these articles, of one sleeper being disturbed by the movements of the other, or of absolute discomfort in the case of a person sleeping alone. Perfect adjustment to the movements of sleepers is secured through the construction of the mattress, combined with that elasticity and softness which are absent when any other mattress is used. On the "Swing" mattress of this firm the same verdict must be pronounced. This is a mattress in which the central springs of the Excelsior mattress are replaced by woven wires throughout; the springs existing at each end. In respect of absolute softness and flexibility, this make attains the first rank, and the self-adjusting powers alluded to as existing in the Excelsior mattress, are repeated in the case of the Swing mattress. There can be no greater luxury in the way of bed-furnishings than these mattresses. Added to comfort, we have the great virtue of health. All authorities agree in saying that our bed-furnishings should be of simple character, easily ventilated, readily cleaned, and comfortable. All of these qualities are possessed, in a high degree, by the mattresses of Messrs. Chorlton & Dugdale. The important element of price has not been overlooked by this firm. This is one of the comparatively rare cases in which a really first-rate article is sold at an absolutely low price. The prices range from £1. 13s. 6d. and £1. 18s. for the Excelsior and Swing mattresses respectively, to £3. 8s. and £4 according to size.

Other makes sold by this firm, and which include all the essential points for comfort and self-adjustment, are the "Eastern" and "Palatine" mattresses. In their principle of manufacture these differ slightly from those we have described, but represent likewise highly-comfortable manufactures, and are sold at very moderate prices. The latter makes are cheaper in price than the Excelsior and Swing mattresses. An inspection of the various other manufactures of this firm has shown us the amount of enterprise which the partners have brought to bear upon the manufacture of bedroom furniture and of invalid appliances. An invalid bedstead—the Excelsior—provided with a patented appliance for raising the invalid to any angle, and for securing comfort free from back-ache and weariness, demands a special notice. Matlock Invalid Couches, Bed Rests, and Camp Beds, may also be mentioned among the specialties of the firm, which, we may add, has a large show-room at 149, Queen Victoria-street, London, E.C., for the convenience of the trade. These mattresses may be obtained from any cabinet-maker or house furnisher.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "The Publisher," *at the same address.*

LETTERS TO THE EDITOR.

CAN TOMATOES CAUSE CANCER?

Sir,—The statement that "eating tomatoes causes cancer" can scarcely be taken as a serious assertion. The question is still a doubtful one whether cancer is a local disease from which the whole system is gradually infected, or a constitutional disease expressing itself in a local manner. The balance of opinion seems, however, to be in favour of the former view, and it is with this hope that surgeons advise the early removal of the growth, in order to prevent the further spread of the mischief.

Why certain tissues of the body should under certain conditions develope tumours of a cancerous nature is not known. The specific germ or bacillus of cancer has not yet been discovered. For example, such a disease as inflammation of the lungs does not always run the same course in every person. In some the inflammatory material is rapidly absorbed, and the lung returns to a state of health; while in others it is incompletely absorbed, the lung-tissue breaks down, and the patient passes into what is called consumption. The only explanation we are at present able to give is, that in the latter case the patient has acquired or inherited the consumptive tendency. In the case of cancer, a blow or the irritation of a pipe may be the exciting cause; and, instead of this irritation developing an ordinary inflammatory swelling, a cancerous tumour is the result. We explain this by saying the patient has the cancerous constitution.

The microscopic structure of the various cancerous tumours can be easily demonstrated under the microscope, but the *cause* of certain tissues taking on these peculiarities of growth has not yet been ascertained.

An entire diet of tomatoes would certainly prove prejudicial to the general health, because the tomato does not contain all the requisites of a healthy diet. A tomato salad, however, with our dinner is healthy, and will never produce cancer.—I am, yours, &c.,

London. A Hospital Physician.

Sir,—Most readers of Health, who know anything of cancer and its varieties, will be disposed to agree with what you say on the question whether that disease may be produced by the use of tomatoes. The practitioner who made such a statement can hardly be deserving of the distinctive adjective "eminent." His reasons for the faith that is in him will be looked for with much interest. In the meantime it may comfort your inquirer if I inform him that to my own knowledge there are "eminent" practitioners here who are in the habit of recommending the condemned tomato to their patients, and I am not aware that they have more cancer cases on their hands than their professional brethren, nor does it appear that "eminent" authorities on cancer and allied tumours have yet begun to look to the vegetable kingdom for the causes of these growths. The tomato industry has within late years greatly increased in importance, and such statements must be shown to be founded on unquestioned data, or supported by the undivided opinion of the medical profession before being allowed to injure it.

I am, yours faithfully, F.R.C.S.Ed.

Edinburgh.

THE VOLUNTEER MEDICAL STAFF CORPS.

Sir,—Permit me, through your columns, to draw the attention of young gentlemen interested in ambulance work to a new volunteer corps lately started for ambulance work for the volunteer forces.

This corps is called the Volunteer Medical Staff Corps, and has its headquarters at 26, King William-street, Strand, London, W.C.

It is composed at present of a number of medical students and lay gentlemen, and is commanded by Surgeon-Commandant Cantlie, of Charing-cross Hospital.

Any young gentleman interested in ambulance work, and desirous in war time of sharing in the Red Cross work in the field, could receive in this corps a valuable training, useful in civil as well as military life. This corps is really a volunteer branch of the Medical Staff Corps of the regular army, and is intended to do similar work for the volunteer forces. The Adjutant-Surgeon Lees Hall, at the headquarters at 26, King William-street, Strand, will, I am sure, be glad to afford any information.

It is a highly needful organisation.—Yours faithfully,

George J. H. Evatt, M.D.,

Woolwich. Surgeon-Major Army Medical Staff.

QUERIES AND ANSWERS.

MEDICAL.

Assistant.—Take internally Fer Bravais as ordered to "J. H. B." in the present number of Health, and apply the bicarbonate of soda and glycerine lotion to the parts twice or thrice daily. Wash the face with Iodoform Soap (advertised in our pages), and write again if not cured. For the hair use a soft brush only, and rub in Rowland's Macassar Oil each morning to the scalp.

J. J. O'Shea.—You are very foolish to trouble about yourself as you do, and you are utterly in error regarding the cause of your ailment. Keep your mind perfectly easy. Sponge your chest each morning with cold water in which Tidman's Sea Salt has been dissolved, and take a dessertspoonful of Scott's Pure Cod Oil Emulsion with Hypophosphites after your meals thrice daily. If there is any tightness of the chest, inhale at bedtime the steam arising from a pint of hot water, to which a teaspoonful of Friar's Balsam has been added, and smoke one or two of Dr. Douglas's Maori Cigarettes through the day (see advertisement in our pages). By attention to these details you will get quite well.

Reader.—You probably suffer from the results of a small abscess, which your poulticing brought to a head. Go to a good surgeon, who will examine the part carefully, and adopt means to cause the surface to heal completely. No other remedies can be of permanent value to you; and the fact that the ailment is troubling you more acutely now is an additional reason for your having it seen to at once, and for having it surgically treated. This will be a simple matter in any case.

A Sufferer (Leith).—Try the effect of taking twenty drops of Parke, Davis, & Co.'s Cascara Cordial in water an hour before your breakfast, and repeat the dose, if necessary, in the afternoon. This will remove the constipation. As to diet, give up tea and coffee, and for breakfast and supper substitute Scott's Midlothian Oat Flour, or Grant's Scotch Oat Flour. For the rest, let your diet be light. Take as much open-air exercise as possible. You must persevere with above treatment for a time.

Agony.—There is no need for you to be either alarmed or despondent. You are in error in attributing to your past any such effects as those you now feel, and your ailments largely proceed from your excited mind. Simply read and follow advice given to "Taxus" in the present number of Health, and you will get quite well.

R. Duncanson.—Press out the blackheads with a watch-key or your finger-nails, and, thereafter, sponge the face with Eau de Cologne or Toilet Vinegar. These blackheads result from defective skin-action, and are merely filled up skin-ducts. Take hot baths regularly, and use Iodoform Soap. Avoid fatty foods, pastry, salt meats, &c., and let your diet be plain. Take open-air exercise, and if troubled with face-pimples, try fifteen drops Fer Bravais in water, thrice daily, an hour before your meals.

Muett.—See and follow advice given to "Agony" above. Of course you may take open-air exercise so long as you do not overdo it. You are very foolish to allow the lies of quack literature to trouble your mind.

George Barry.—Why have you worn a truss, when, as you assert, there is no rupture? Your safest method is to consult a surgeon, who will advise you fully as to your exact condition. Your letter does not make it clear, in any sense, why a truss should have been worn at all.

C. W. B.—The best remedies for boils are care in diet (which should be light and non-stimulating); a dose of Lamplough's Pyretic Saline in the morning, when required, as a safe aperient; and lastly, sulphide of lime powders. These latter are to be made up by a druggist as follows:—Sulphide of lime, twenty-four grains; sugar of milk, half an ounce. Mix. Take as much of the powder as will cover a sixpence, every four hours, so long as the boils persist.

Novocastrian.—You do not make clear to us if there is any specific cause for the ailment of which you complain. If there is no such cause, simply continue the Pond's Extract, and take inwardly the tonic recommended to "Taxus" in the present number of Health. Avoid all exercise, if you are wise, until you are thoroughly well.

TIMBUCTOO.—We certainly cannot recommend any "nose machine" whatever. Such appliances are, in our opinion, absurd and ridiculous in their character. How can any machine "replace the skin of the nose?" Let your own common sense answer this question. Save your money, if you are wise, and be content.

W. Y. A.—Your case is a sad one, and you have our deep sympathy. The ailment, as you know, is an incurable one. We can only strongly recommend you to be more than careful in the matter of taking opiates, severe though the pain must be. We would suggest that you should inquire of your medical man the method of giving a hypodermic injection of morphia. This method is the only sure way of relieving the pain, and obviates the bad effects of morphia taken internally.

TAXUS.—You have no cause for alarm. The quack-literature you have been reading is a tissue of lies, and the pamphtet you send us is written with the view of terrifying ignorant persons to fly to the quack. This will render clear to you the tremendous anxiety of these impostors that their dupes should be well terrified in the first instance. We recommend you to attend to and follow out the succeeding instructions:—1. Avoid constipation, by the use of a fruit and vegetable diet, and by taking Scott's or Grant's oat-flour for breakfast and supper. If constipation persists, take twenty drops of Cascara Cordial (Parke, Davis, & Co.'s) in water an hour before breakfast, until cured of this ailment. 2. Avoid fluids and suppers late at night. 3. Take plenty of open-air exercise. 4. Sleep on a hard mattress in a well-ventilated room. 5. Take a cold sponge-bath each morning, and use brisk friction thereafter with a hard towel. 6. For a time, take a teaspoonful of Fellows' Syrup of the Hypophosphites in a wineglass of water, thrice daily, an hour before your food. Last of all, remember that the symptoms you name are perfectly natural to all healthy persons, unless when they are of over-frequent occurrence.

F. O. P.—There are no such drugs used in English pharmacy. Where did you get the references?

XERBE.—See and follow advice to "Taxus" above.

VALEO.—Sanitas *Fluid* is recommended in cases in which (as in typhoid fever, &c.) disease germs may have lodged in the digestive system. Researches have just been completed, showing that Sanitas *Fluid* has a distinct action in this way, and that it does not interfere with the digestive processes. It is a bitter fluid, otherwise it could be taken undiluted. It should be diluted with twice its volume of water, and a wineglass of this diluted mixture may be taken thrice daily between meals.

THOS. MANNING.—Depends very much on individual taste and digestion. We should say, very lightly boiled would be equally digestible with, and more palatable than raw.

DOROTHY.—1. Consult a surgeon. The lumps are probably wens. 2. See advice regarding diet and Cascara Cordial given to "Dyspepsia" in the last number of HEALTH. By following these directions, you will get quite well.

DESFORD.—1. Such books as Dr. Joll's "Hygiene of Infancy" (2s. 6d., H. K. Lewis, Gower-street, London, W.C.); or Miss Jex Blake's "Primer of Infancy" (Macmillan, 1s. 6d.), both recently reviewed in HEALTH, will suit you. Pye Chavasse's "Advice to a Mother" (2s. 6d., Messrs. Churchill, New Burlington-street, London, W.), is also a good book. 2. There should be no danger in the case you name. Simply expose the articles thoroughly to the open air for a few days. Infection is not likely to have occurred in the case of mere wraps.

PETITE SANTÉ.—You are a little impatient. You cannot get rid of your troubles all at once. Persevere with the Cascara Cordial, eat stewed fruits, and take Scott's Midlothian Oat Flour, or Grant's Scotch Oat Flour, for breakfast and supper. For the other symptoms, which need cause no alarm, drink copiously of the Victoria Water (advertised in our pages) as an alkaline beverage, calculated to remove the symptoms in question. Fer Bravais in fifteen-drop doses, in water, after your food may be taken as an aid thereto.

SEMAJ.—Have the hair cut as short as possible for a considerable period. Wash once weekly with Iodoform Soap and tepid water, and use a little plain olive oil or almond oil scented each morning. Failing to obtain relief from those measures, you must consult a specialist in hair-diseases. Extreme shortness of the hair, as ordered, should certainly be tried.

NOMEN.—1. Yes; both are unsuited in chronic indigestion. Read articles now in course of publication in our pages on food, and you will see the effects of tea there described. Cocoa is much to be preferred. It is a food, which tea is not. See a series of articles on "Digestion and Health" in former numbers of HEALTH, in which this subject is fully treated. 2. Continue with the cordial, twice daily, in twenty-drop doses, if once is insufficient. See advice also regarding food to "Petite Santé" above. 3. We prefer using a little Hazeline or Pond's Extract (one to three or five of water) as a healing lotion.

UNEASY.—Wash the head once a week, and the body daily, with Samphire Soap and tepid water (see advertisement in HEALTH No. 125, regarding obtaining, free, a specimen cake of this soap) and look also to your diet, which should be non-stimulating. Avoid salt foods, pastry, &c. If not bettered, write more fully, and give an account of food, habits, &c.

A DISAPPOINTED ONE.—You must exercise your patience, and, above all, keep your mind from dwelling on such topics, or you will never recover your lost tone. Either of the appliances named are genuine—*i.e.*, Pulvermacher's, or the "Medical Battery Belt," and might be tried.

BRUNSWICK.—1. We should say ordinary gout. 2. Procure Dr. Peter Hood's book on "Gout and Rheumatism" (recently reviewed in HEALTH), in which you will find a full statement of symptoms and treatment, written for lay readers. Messrs. Churchill, 11, New Burlington-street, London, W., publish this book, the price of which is 4s. 6d. we believe. A study of this work will greatly profit the patient.

A. B. Y. Z.—1. Owing to its destroying or rendering too dilute the principles of the fruits, for the sake of which they are eaten. 2. About, or over, half an ounce of alcohol will be contained in the quantity of brandy you named, which is a perfectly proper and safe quantity, as ordered you by your physician. 3. No; rather injurious to the hair, we should say. We are glad to hear that Dr. Cousin's "Sound Deadeners" are so useful in bathing for protecting the ears. Where did you purchase them?

INTERESTED INQUIRER.—We should advise, in such a case, the use of an injection of tepid water in which a few crystals of permanganate of potash have been dissolved, so as to give the water a light claret tint. This is a milder form of treatment for the case named than that suggested in your letter. The fluid above named would require to be used as described in your note. The results would be effectual in curing the condition named.

J. H. B.—You must, in the first instance, look to your general health. A sore throat of the kind you name is as likely as not to prove only a symptom of a general and constitutional weakness. During winter, especially, take a dessert-spoonful of Scott's Pure Cod-Oil Emulsion after your meals thrice daily, ten drops Fer Bravais may be added to the oil. As an inhalation, try at night inhaling the steam from a pint of very hot water to which a teaspoonful of Friar's Balsam has been added.

J. CRAIG.—See and follow advice to "Taxus" in the present number of HEALTH. You will be very foolish if you allow your mind to dwell so much on your past. There is no reason why, by attention to the advice given, you should not get quite well. See also advice regarding food given to "Dyspepsia" in the last number of HEALTH.

NERO.—No danger or risk whatever. The relationship is too distant for ill effects. The step may safely be taken.

BARUM.—The book you read was a quack production of the purest (or dirtiest) water. You should read and follow advice to "Taxus," given in the present No. of HEALTH. You will get quite well by attending to the details there stated. Above all, keep your mind easy. From your letter to us, it is easy to see you are nervous regarding yourself, and this without cause.

C. F.—1. Put a drop of glycerine into the ear at night, to soften any wax which may have accumulated there, and in the morning syringe the ear carefully out with tepid water. Probably what you complain of arises from wax. 2. Wash the parts which are irritated with Iodoform Soap and tepid water at night, and dust on them thereafter a little of Woolley's Sanitary Rose Powder.

G. GERMAN.—No; there is no recovery possible save through a surgical operation. This is now performed readily and safely under recent advances in surgery.

T. YOUNG.—The fee was not excessive considering the amount of attendance which was paid you. You could not expect night-visits to be made, as well as an operation to be performed, for a less sum than that charged you.

X. X. X.—The result of exposure to chill probably. Hot hip-baths are necessary, with rest in bed and non-stimulating food.

R. B. R.—No; we do not approve of the system of treatment you name. Science has not yet proved that the remedy in question has any such effects as are claimed for it.

SAMBO.—1. Yes; milk is preferable, at least for a change, and even if only occasionally used. 2. Depends on the individual constitution. You must judge by their effects upon your health. 3. Vegetarianism is suitable for some—not for all. The matter is one for individual test.

J. T. B.—There are no specific means save attention to the general health, aided by the following:—Iodide of potass, one drachm and a-half; infusion of calumba, six ounces. Mix. Label: "A dessertspoonful thrice daily." This mixture should be continued for some weeks at a time, and resumed after an interval.

SCROFA.—You are absolutely in error in attributing your ailment to the cause you name; and what you mention in your postscript is only a sign of health. Wash the whole body regularly night and morning with Iodoform Soap (see advertisement in our pages), and internally take fifteen drops Fer Bravais, in water, thrice daily, an hour before your meals. If not cured, write again.

TOOAN SAKIT.—We think you should try Thompson's Cod-Oil Cream (Dublin-street, Edinburgh); a dessertspoonful to be taken thrice daily after your meals. Add ten drops Fer Bravais to the cream, clothe warmly, and avoid chills. You require simply constitutional, not local, treatment. Begin, therefore, by taking the strengthening tonic ordered you. If not bettered, write again.

CRICKETER.—Wash the parts night and morning with Samphire Soap and tepid water. Thereafter dust a little Fuller's earth on the part. If not cured, write again. Internally, take the Fer Bravais as ordered to "Scrofa" above.

J. W.—We do not know the powder you name. Your writing is indistinct. If you mean Jeye's Powder, see advertisement in HEALTH. This powder is an effective disinfectant.

ANTIBILIOUS.—1. What do you mean by "bile being in the human body"? Of course, bile exists in the liver, is stored in the gall-bladder, and is poured upon the food. Bile salts also occur in the blood in minute quantities. If bile in larger quantity is poured into the blood, jaundice is the result. 2. Headache, lassitude, indigestion, and other evils. 3. Depends on the individual health and habits. There are many causes. 4. Nothing unusual; simply due to muscular spasm. Bathe with cold water night and morning, and take the Fellows' Syrup as ordered to "Taxus" in the present number of HEALTH.

W. F. HOLMES.—1. Due to defective assimilation. Drink freely of the Victoria Water (advertised in HEALTH) as a beverage, and take the Fellows' Syrup as recommended to "Taxus" above. 3. Allow a tablet (Wyeth's) of Chlorate of Potash and Borax to dissolve in your mouth once or twice daily. This will probably cure you, unless a decayed tooth is the cause of the sore. If so, have the tooth extracted.

AËROTHERAPEUTIS.—Please address your inquiry to Messrs. Khronë & Sesemann, Duke-street, Manchester-square, London, W., who will afford you all information, and obtain such apparatus for you.

VEGA.—1. Use an injection, twice daily, made by dissolving a crystal or two of permanganate of potash in a tumbler of tepid water. Internally, take the Fellows' Syrup, as ordered to "Taxus" in the present number of HEALTH. 2. Better try the effect of giving up tobacco altogether, and continue the use of the spectacles. Rest the eyes at night entirely, for some time, and read as little as possible through the day.

A. W. B.—Continue the cold bathing night and morning, and give Mariani's Wine of Coca (advertised in our pages) a fair trial. In cases like yours, this latter tonic has a decided effect. At the same time, rest after meals, and otherwise attend to your general health. Remember also, that in the particular case of which you write, moderation in the exercise will further your object, whereas excess will defeat your purpose.

M. ANDERSON.—Try the Maltine Company, Hart-street, Bloomsbury, London, W.C. Explain your wishes, and if not suited, write us again.

ENQUIRER.—We do not know the firm you name. Send us their literature, and we will give you our opinion of their pretensions.

J. FRANCIS.—If you go to the hospital, you must simply trust to the medical staff to do what is right and necessary in your case. It would do no harm for you to go as an out-patient in the first instance, and obtain an opinion regarding your case.

J. HAMILTON.—Bathe the eyes with cold green-tea, and refrain from all reading, &c., at night, until you have recovered. Smear the eyelids at night with a little pure Vaseline; and internally take the Fer Bravais recommended to "Scrofa" above.

ANXIOUS SISTER.—Give the child plenty of strong soups and new milk; keep her from school for at least six months, and attend thoroughly in the winter to her clothing and food. A teaspoonful of Carnrick's Peptonised Cod-Oil and Milk may be given with advantage, thrice daily, after her food. If any symptoms of chest complaint appear, consult a medical man at once. We can send you address of a reliable authority, if required, on receipt of stamped, addressed envelope.

A. B.—Take a dose of Lamplough's Pyretic Saline each morning, when affected; avoid fatty foods, salt meats, &c.; eat stewed fruits, and take milk and soda-water as a drink; stale bread, soups, white boiled fish, and little meat. Rest after your meals is essential. A little of Wilkinson's Dandelion Wine may be taken daily.

H. SHARP.—We regret that we cannot undertake to search for replies in HEALTH. Such a labour, if entailed upon us frequently,

[*Continued on page* 384.

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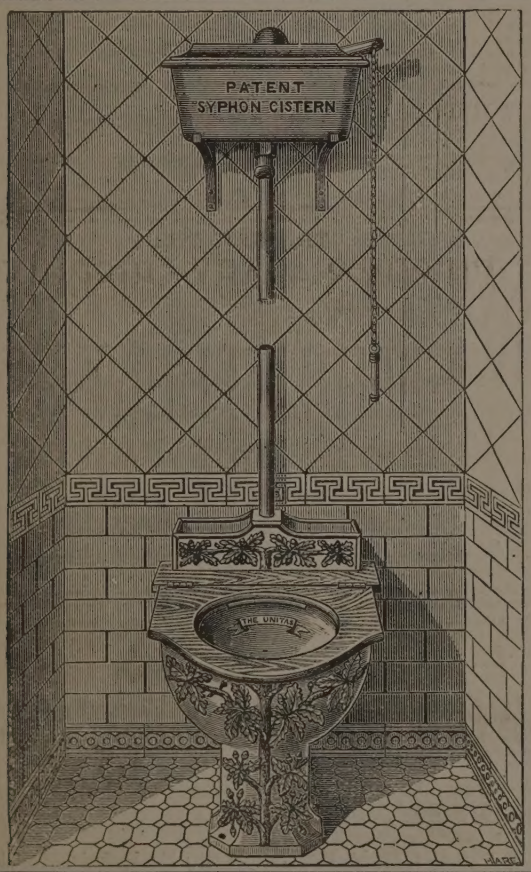

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would simply be enormous. You had better restate your case, and we will reply again.

Louisa Bagnall.—We advise you to strengthen your system generally by taking, for a time, a dessertspoonful of Scott's Pure Cod-Oil Emulsion with Hypophosphites, thrice daily, after your food. Alternate this week about with fifteen drops of Fer Bravais, taken in water after your meals, thrice daily. If your cough is troublesome, inhale (at bed-time) the steam arising from a pint of very hot water, to which a teaspoonful of Friar's Balsam has been added. These means should strengthen you. Dr. Mackenzie's book on "Hay Fever" is published by Messrs. Churchill, 11, New Burlington-street, London, W., price 2s. 6d.

Austen Watt.—See and follow advice as regards Cascara Cordial and diet given to "Dyspepsia" in last week's Health.

Connie B.—1. No; we do not advise you to apply salt to your face. This would cause roughness of skin. Use soft water and Pears' Soap; nothing more is needed. 2. Try applying a little plain Vaseline at night to the enlarged vessels. We fear nothing will alter them. 3. Take a little of Wilkinson's Dandelion Wine as a liver tonic; avoid fatty foods, salt meat, and pastry; and eat fruits.

A Dread of Wrinkles.—Try one part tincture of benzoin added to nine parts rose-water, and use as a face lotion. The chemist was not correct. Any person of intelligence would have known what the ingredients are which were given in the paragraph.

Hygiene.—Why should you be disturbed at what your studies should have told you is a natural result of health? See advice given to "Taxus." The tonic there named may be taken if your system requires such; for the rest adopt the other measures (cold sponging, &c.) given in the advice indicated. You are quite well, and only inclined to be nervous.

E. D.—1. The turtle-oil may be difficult to procure. Obtain some turtle-fat from a restaurant where the soup is made, and melt it down. 2. Read review of Dr. Ebstein's book on "Fatness and its Cure," in Health No. 57. The publisher's name is there given. All back numbers may be had by sending stamps therefor to the Publisher of Health, 74, Great Queen-street, London, W.C.

A. B.—Try what change of air will do for you; and give warm baths at night a trial, dissolving Tidman's Sea-salt in the water. If not bettered, write again, and restate your case, as we do not preserve correspondence.

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